

CLAIMS

1. A playback apparatus comprising:

a playback unit operable to play back a digital stream
5 recorded on a recording medium;

a judging unit operable to judge whether there is a playback
control that becomes enabled or disabled, when a current playback
point in a playback timeline of the digital stream reaches a
predetermined point; and

10 a transmission unit operable to, when a result of the judging
is affirmative, transmit information relating to the playback
control to an operation device, wherein

whether the playback control is enabled or disabled is
displayed on the operation device in accordance with the
15 transmitted information.

2. A playback apparatus according to Claim 1, wherein

the transmitted information is composite display
information for composing an interactive display in which a
20 plurality of buttons are arranged,

each of the buttons corresponds to a different one of a
plurality of playback controls, and

whether each of the playback controls is enabled or disabled
is represented by setting a button corresponding to an enabled
25 playback control to an available state, and setting a button
corresponding to a disabled playback control to an unavailable
state.

3. A playback apparatus according to Claim 2, wherein

the composite display information includes pieces of event information each corresponding to a different one of the buttons, and

each piece of event information indicates an event to be
5 outputted from the operation device upon an operation of the corresponding button by a user.

4. A playback apparatus according to Claim 2, further comprising:

10 a memory that holds pieces of the composite display information in advance, wherein

each piece of the composite display information includes a piece of effective section information specifying an effective playback section during which the interactive display is
15 effective, the effective playback section being one of a plurality of playback sections in the digital stream,

the predetermined point is at a head of one of the playback sections, and

the judging is performed by searching the memory for a
20 piece of effective section information indicating the playback section in which the predetermined point is located.

5. A playback apparatus according to Claim 2, wherein the composite display information is either

25 (i) read from the recording medium, upon loading of the recording medium, into a memory provided in the playback apparatus, or

(ii) downloaded from a server apparatus on a network to the memory.

6. A playback apparatus according to Claim 1, wherein
the recording medium is recorded with pieces of playback
section information each specifying a different one of a plurality
5 of playback sections,
each piece of playback section information includes a flag
indicating whether a playback control is enabled or disabled
in the corresponding playback section,
the predetermined point is at a head of one of the playback
10 sections, and
the judging is performed by referring to the flag in a
piece of playback section information corresponding to the
playback section in which the predetermined point is located.
- 15 7. A playback apparatus according to Claim 6, wherein
the playback control is angle change,
the flag indicates whether a request for the angle change
is masked,
the each piece of playback section information further
20 includes another flag indicating whether the corresponding
playback section is multi-angle, and
the judging is performed by taking a logical sum of the
two flags.
- 25 8. A playback apparatus according to Claim 6, wherein
the playback control is skip play,
the flag indicates whether a request for the skip play
is masked.

9. A playback apparatus according to Claim 6, wherein
the playback control is one of fast-forward and
fast-rewind,

the flag indicates whether a request for the one of
5 fast-forward and fast-rewind is masked.

10. A playback apparatus according to Claim 1, wherein
the predetermined point is a point where an interactive
control segment exists in the digital stream,

10 the judgment is performed by taking a logical sum of a
flag in the interactive control segment corresponding to the
current playback point and a flag in a piece of playback section
information that has been read into the playback apparatus.

15 11. A system integrated circuit mountable in a playback
apparatus that plays back a digital stream recorded on a recording
medium, the system integrated circuit comprising:

a judging unit operable to judge whether there is a playback
control that becomes enabled or disabled, when a current playback
20 point of the digital stream reaches a predetermined point in
a playback timeline; and

a transmission unit operable to, when a result of the judging
is affirmative, transmit information relating to the playback
control to an operation device, wherein

25 whether the playback control is enabled or disabled is
displayed on the operation device.

12. A program that causes a computer to perform a playback
operation, the program having the computer execute steps of:

playing back a digital stream recorded on a recording medium;

judging whether there is a playback control that becomes enabled or disabled, when a current playback point of the digital stream reaches a predetermined point in a playback timeline;
5 and

when a result of the judging is affirmative, transmitting information relating to the playback control to an operation device, wherein

10 whether the playback control is enabled or disabled is displayed on the operation device.

13. A playback method comprising steps of:

playing back a digital stream recorded on a recording
15 medium;

judging whether there is a playback control that becomes enabled or disabled, when a current playback point of the digital stream reaches a predetermined point in a playback timeline;
and

20 when a result of the judging is affirmative, transmitting information relating to the playback control to an operation device, wherein

whether the playback control is enabled or disabled is displayed on the operation device.

25

14. An information recording medium recorded with a digital stream, and composite display information for composing an interactive display having a plurality of buttons arranged thereon, the composite display information comprising:

effective section information specifying an effective playback section during which the interactive display is effective, the effective playback section being one of a plurality of playback sections in the digital stream; and

5 button information indicating the buttons each corresponds to a different one of a plurality of playback controls, wherein
 whether each of the playback controls is enabled or disabled is represented by setting a button corresponding to an enabled playback control to an available state, and setting a button
10 corresponding to a disabled playback control to an unavailable state.